Conducting an Observational Study

Help your students deepen their understanding of scientific practices. Observation is one of the foundations of science. This activity will help guide you and your students through an observational study of their own creation.

Objective:

• Build student awareness about the importance of observational studies for ecological understanding
• Plan, execute and analyze an observational study

Materials:

• Journal or notebook
• Stopwatch or timer
• Observational Study Factsheet

Process:

1) Teacher will introduce students to observational studies, by showing students the three types of monitoring
   a) Scientific journaling
   b) Tracking/Mapping
   c) Ethogramming
2) Ask the students: What types of questions can be answered using an observational study?
3) Have students work individually, or in pairs to choose a study animal, come up with a study question and determine which observational method to use.
   a) You can visit a zoo, go to the park or observe animals in your backyard. Whatever you have access to!
4) Students should observe their study animal for 15 minutes, using the stopwatch to monitor their time.
5) Return to the classroom and give students 20-30 minutes to analyze their data.
   a) Students should try to answer their study question using the data.
      i) If unable, students should determine if their study method was the proper choice.
   b) Can generalization be drawn about larger populations of your study animal?
   c) Could anything be done differently to improve outcomes or learn more?
   d) What are some follow-up questions that could be studied in the future?
6) Give each group or individual 1-2 minutes to present their study and findings to the class.